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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/694,870	10/24/2000	Dan M. Griffin	907.0009USU	2361
29683	7590	02/04/2005	EXAMINER	
HARRINGTON & SMITH, LLP 4 RESEARCH DRIVE SHELTON, CT 06484-6212			MATTIS, JASON E	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

CA

Office Action Summary	Application No. 09/694,870	Applicant(s) GRIFFIN ET AL.	
	Examiner Jason E Mattis	Art Unit 2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/16/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,8 and 12-16 is/are allowed.
- 6) ☒ Claim(s) 1, 3-7, and 9-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the amendment filed on 6/16/04. Due to the amendments, objections to the Oath/Declaration and the Specification have been withdrawn. Also, due to the amendments the rejections of claims 3 and 4 under 35 USC § 112 have been withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 4-7, and 10-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Beidas et al. (U.S. Application 09/768726).

With respect to claim 1, Beidas et al. discloses a method for operating a communication device comprising receiving a first carrier and deriving a receiver tracking signal that is indicative of a frequency shift between the received first carrier and a reference signal (See page 2 paragraph 18, page 3 paragraphs 48-49 and Figure 1 of Beidas et al. for reference to a satellite communications system 100

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comprising satellite terminals 106 that receive a downlink signal, which is a first carrier, from a satellite 102 and derive from the downlink signal a unique word pattern, which is a receiver tracking signal that is indicative of a frequency shift between the downlink signal and an expected reference signal). Beidas et al. also discloses shifting a receiver baseband signal by an amount and in a direction indicated by the receiver tracking signal **(See page 2 paragraph 18 of Beidas et al for reference to adjusting the local clock frequency based on the received unique word pattern).** Beidas et al. further discloses shifting a transmitter baseband signal by an amount indicated by the receiver tracking signal during the receive period in a direction opposite to the direction indicated by the receiver tracking signal during the receive period and transmitting a second carrier signal that is modulated in accordance with the shifted transmitter baseband signal **(See page 3 paragraph 49 of Beidas et al. for reference to using the beacon signal, which contains the unique word pattern, to coordinate transmissions of uplink signals so that they arrive at the satellite 102 in the assigned time slot, meaning that the transmitter frequency is adjusted so that transmitted signals will be synchronous with the timing of the satellite).**

With respect to claim 4, Beidas et al. discloses a TDD communication device comprising customer premises equipment and that the first carrier is received from a transmitter of an access point **(See page 3 paragraphs 48-49 and Figure 1 of Beidas et al. for reference to satellite terminals 106, which are TDD customer premises equipment, receiving downlink signals from a satellite 102, which is an access point).**

With respect to claim 5, Beidas et al. discloses that at the end of the receive period a step is performed of storing the receiver tracking signal for use during the next transmission period **(See pages 3-4 paragraphs 48-54 of Beidas et al. for reference to using the received beacon signal, which is stored on reception of the signal, to adjust the frequency of a transmitter VCO that is used to modulate transmitted signals in the next uplink transmission period).**

With respect to claim 6, Beidas et al. discloses that the step of shifting the transmitter baseband signal functions to pre-compensate the transmitted second carrier signal so as to reduce carrier acquisition time at a receiver of the transmitted second carrier signal **(See pages 3-4 paragraphs 48-54 of Beidas et al. for reference to adjusting the transmitter frequency in order to make a transmitted uplink signal from the satellite terminal 106 arrive at the satellite 102 in the correct assigned time slot, meaning the adjustment pre-compensates the transmitted signal to reduce acquisition time at the satellite 102).**

With respect to claim 7, Beidas et al. discloses a communication device comprising a receiver baseband subsystem and a transmitter baseband subsystem **(See page 3 paragraphs 48-49 and Figure 1 of Beidas for reference to a satellite terminal 106 that has subsystems to both receive downlink signals from and transmit uplink signals to a satellite 102).** Beidas et al. also discloses a receiver comprising circuitry that is operable during a receive period for receiving a carrier and for deriving a receiver tracking signal that is indicative of a frequency and phase shift between the received carrier and a reference signal **(See page 2 paragraph 18, page 3**

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paragraphs 48-49 and Figure 1 of Beidas et al. for reference to a satellite communications system 100 comprising satellite terminals 106 that receive a downlink signal, which is a first carrier, from a satellite 102 and derive from the downlink signal a unique word pattern, which is a receiver tracking signal that is indicative of a frequency shift between the downlink signal and an expected reference signal). Beidas et al. further discloses rotating the frequency and phase of a receiver baseband signal by an amount and in a direction indicated by the receiver tracking signal **(See page 2 paragraph 18 of Beidas et al for reference to adjusting the local clock frequency based on the received unique word pattern).** Beidas et al. also discloses a transmitter comprising circuitry that is operable during a next transmission period for generating a frequency for a transmitter baseband signal that is shifted by an amount indicated by the receiver tracking signal and in a direction opposite to the direction indicated by the receiver tracking signal **(See page 3 paragraph 49 of Beidas et al. for reference to using the beacon signal, which contains the unique word pattern, to coordinate transmissions of uplink signals so that they arrive at the satellite 102 in the assigned time slot, meaning that the transmitter frequency is adjusted so that transmitted signals will be synchronous with the timing of the satellite).**

With respect to claim 10, Beidas et al. discloses a TDD communication device comprising customer premises equipment and that the first carrier is received from a transmitter of an access point **(See page 3 paragraphs 48-49 and Figure 1 of Beidas et al. for reference to satellite terminals 106, which are TDD customer premises**

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equipment, receiving downlink signals from a satellite 102, which is an access point).

With respect to claim 11, Beidas et al. discloses a sample and hold means responsive to an end of the receive period for storing the receiver tracking signal for use during the next transmission period (**See pages 3-4 paragraphs 48-54 of Beidas et al. for reference to using the received beacon signal, which is stored on reception of the signal, to adjust the frequency of a transmitter VCO that is used to modulate transmitted signals in the next uplink transmission period**).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beidas et al. in view of Chiodini (U.S. Pat. 5949794).

With respect to claims 3 and 9, Beidas et al. does not disclose the signals being CDMA signals.

Chiodini, in the field of communications, discloses that it is necessary to synchronize the frequency and phase of CDMA signals (**See column 1 lines 24-47 of**

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Chiodini for reference to the signals in a CDMA system needing to by synchronized). Using a CDMA system has the advantage of providing a more efficient use of radio resources.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Chiodini, to combine a CDMA system, as suggested by Chiodini, with the synchronization system and method of Beidas et al., with the motivation being to provide a more efficient use of radio resources.

Allowable Subject Matter

6. Claims 2, 8, and 12-16 are allowed.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 3-7, and 9-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason E Mattis whose telephone number is (571) 272-3154. The examiner can normally be reached on M-F 8AM-4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jem

A handwritten signature in black ink, appearing to read 'Huy Vu', with a long horizontal flourish extending to the right.

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600